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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,986	03/11/2004	John F. Cooper	IL-11085	6284

7590 06/19/2007  
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EXAMINER
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WRIGHT, PATRICIA KATHRYN

ART UNIT	PAPER NUMBER
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1743

MAIL DATE	DELIVERY MODE
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06/19/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/797,986

Applicant(s)

COOPER, JOHN F.

Examiner

P. Kathryn Wright

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 1-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 56-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/2004</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for domestic priority under 35 U.S.C. § 119(e).

### ***Election/Restrictions***

2. Applicant's election without traverse of Group II (claims 56-59) and species c (including oxidizing elements or compounds) in the reply filed on May 17, 2007 is acknowledged.
3. Group I, (claims 1-55) and Group II, (species a-b, d-e), are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention and species, respectively, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on May 17, 2007.

### ***Drawings***

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "fluid distribution system" in claim 56 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 203 205, 206, 207, 208, and 210.

6. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 56-59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 56 recites the broad phrase "fluid distribution system". It is not clear from the claims the components include a fluid distribution system. Furthermore, the specification and figures do not clarify what the fluid distribution system feature is referring to. Does Applicant mean pump, valve, etc.? Clarification is respectfully requested.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 56-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent no. 6,290,908 to Fukunaga et al., (Fukunaga) in view of Havlena (US Patent Pub. No. 2002/0189362).

Regarding claim 1, Fukunaga teaches a method of detecting oxidizing chemicals, of a fluid in a pipe wherein the pipe is part of a fluid distribution system. Note that oxidizing chemicals in certain concentrations are considered contaminants. The methodology of Fukunaga includes sensing contaminants in the fluid in the pipe. These contaminants include oxidizing chemicals (i.e., elemental chlorine) and/or biological contaminants, see col. 5, lines 28+. The system of Fukunaga teaches producing a signal based upon the sensing of contaminants in the fluid in the pipe and remotely transmitting the signal to a distant facility (radio means, line transmission, satellite, etc).

The fluid distribution system receives the signal indicating contaminates in the fluid and controls the water purifying facilities accordingly (see col. 4, line 48- col. 5, lines 5).

Fukunaga does not specifically teach the signal being an acoustic signal in the pipe and a receiver that recovers the acoustic signal from the fluid.

Havlena teaches a system for monitoring water pressure with a transmitter that sends an acoustic signal into the water within the pipe and a corresponding receiver for recovering the acoustic signal. The use of acoustic wave propagation through the supplied fluid medium itself is advantageous in that it eliminates the additional costs of equipment, such as, external wires which are easily damaged (see par. [0001]).

Accordingly, one of ordinary skill in the art at the time of the claimed invention would have found it obvious to use the acoustic transmitter/receiver arrangement in Havlena in fluid treatment system of Fukunaga since it reduces equipment cost and maintenance.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are: DE 40 37 600 A1 to Klenner. Klenner teaches sensors connected to pipeline that sense at least one property of the fluid (i.e., flow rate, velocity, temperature) and produces a signal related to the property and a receiver connected to the pipeline for remotely receiving the signal related to the property. Klenner does not explicitly teach sensing of contaminates (chemical, biological) in the fluid. Martin, II et al., (US Pat. Pub. No. 2005/0007877), and Breed (US Pat. No. 6,919,803) are cited for the teaching of remote communication systems in containers.

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13. No claims allowed.

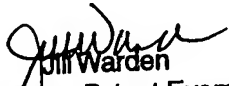
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to P. Kathryn Wright whose telephone number is 571-272-2374. The examiner can normally be reached on Monday thru Thursday, 9 AM to 6 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 12, 2007

pkw

  
Jill Warden  
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